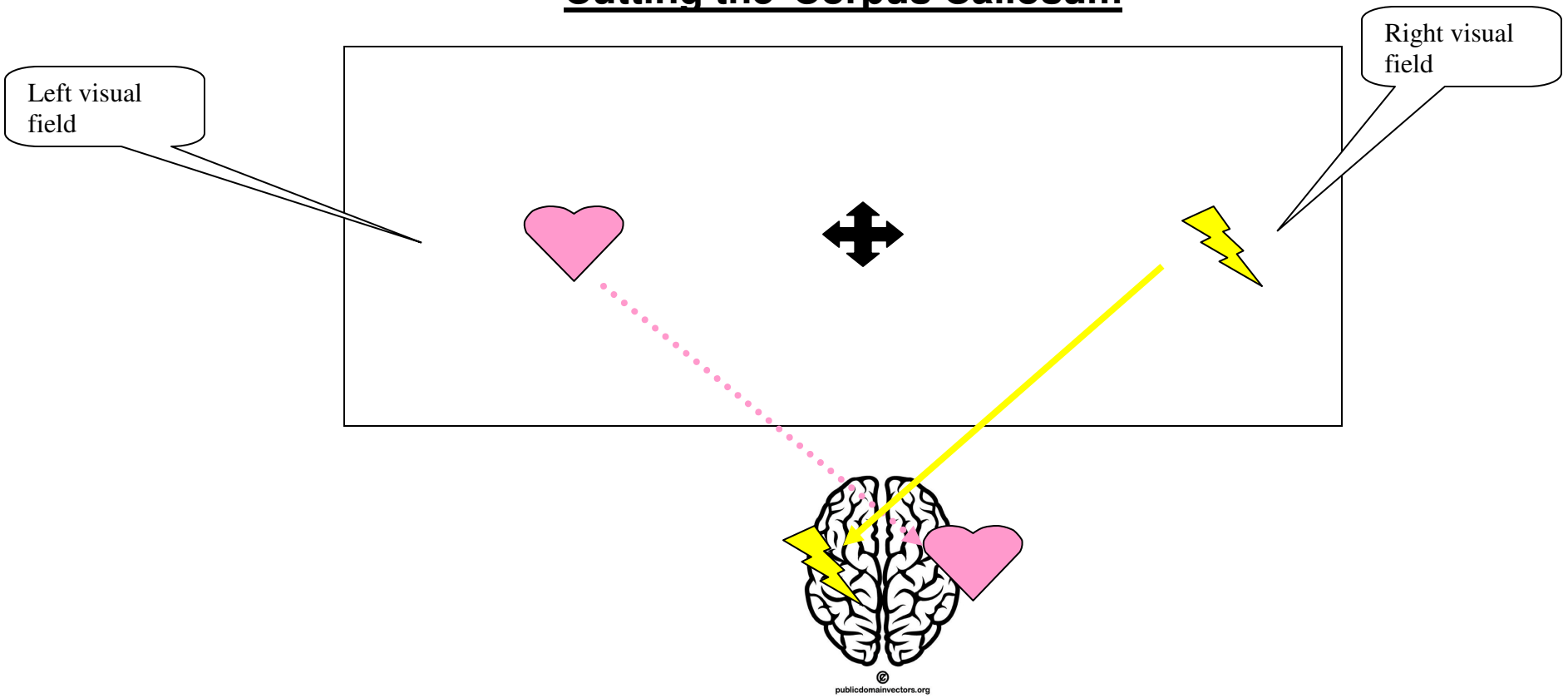
Cutting the Corpus Callosum



In the studies done with split brain patients with the corpus callosum cut, the patients stare at a point on the screen such as the following ( ).

- Items on the left visual field (top picture), are primarily processed in the right hemisphere.
- Items in the right visual field (top picture), are primarily processed in the left hemisphere.

Cutting the Corpus Callosum

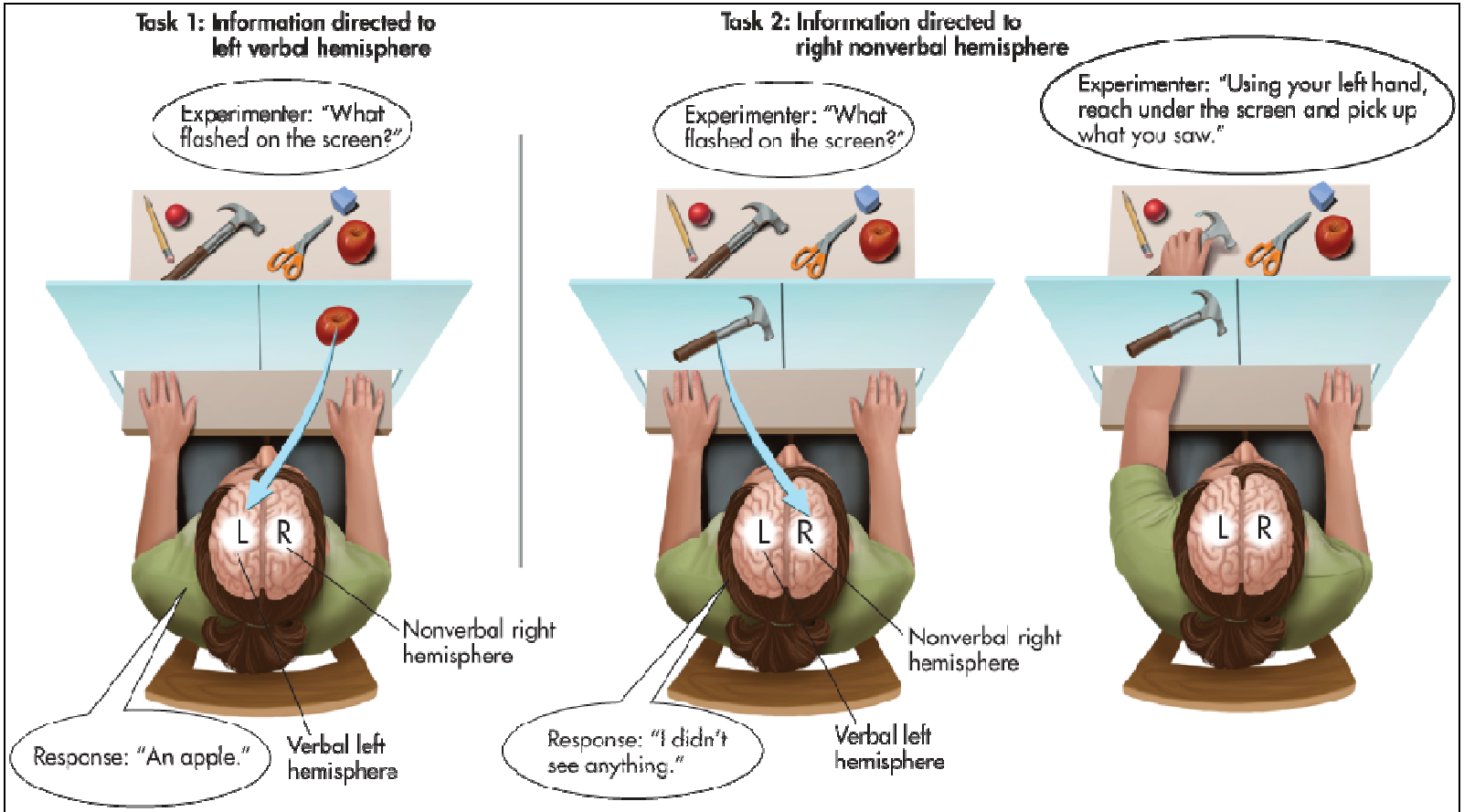
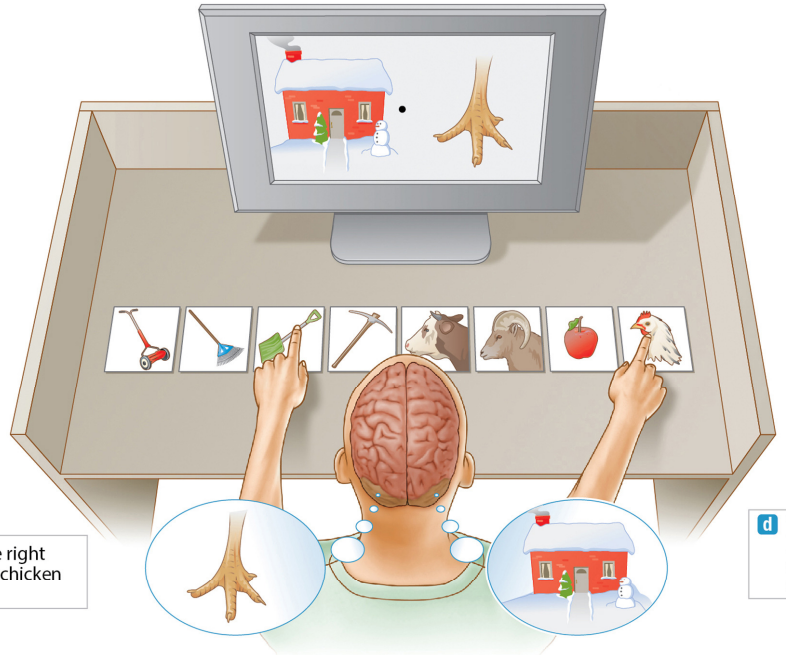


Figure 2.21
Hockenbury/Nolan, *Psychology*, 8e, © 2018 Worth Publ shers
SOURCE: Research from Sperry (1982).

Cutting the Corpus Callosum



a A split-brain participant watches as different images flash simultaneously on the left and right sides of a screen.

b Below the screen is a row of other images. The patient is asked to point each hand at an image most related to the image flashed on that side of the screen.

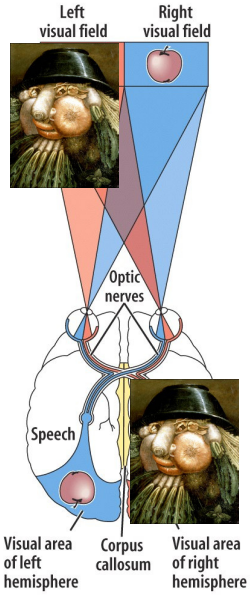
c The left hemisphere lets the right hand point at a picture of a chicken head.

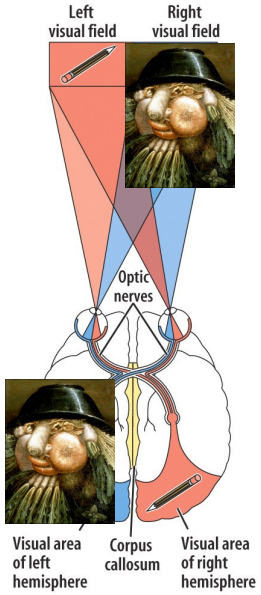
d The right hemisphere lets the left hand point at a picture of a snow shovel.

e When the split-brain participant is asked to explain these selections, the left hemisphere can provide the answers verbally. To explain the right hand's selection of the chicken head, the left hemisphere lets the participant say: "The chicken claw goes with the chicken head." To explain the left hand's selection of the shovel, the left hemisphere must interpret, because it does not see the snow scene, which is processed only in the right hemisphere. The left hemisphere interprets that the shovel is used to clean up after chickens and verbalizes this explanation.

FIGURE 2.25

Cutting the Corpus Callosum



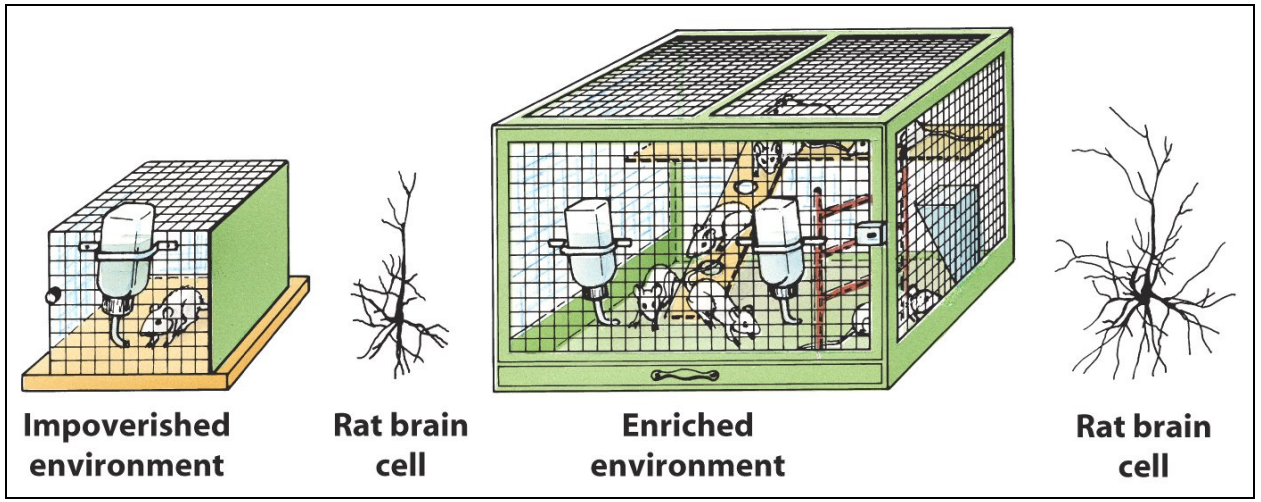


It's a Face

It's Vegetables

The Interplay of Genes and Environment Wires the Brain

To study the effects of environment on brain development. Researchers raised rats in two different laboratory environments. One group was raised in an impoverished environment and a second group was raised in an enriched environment. (page 118). Those raised in an enriched environment has more neural connections.



When you look at the brains of adults who led lives that provided mental challenges such as learning new activities, they developed more neural connections in the brain. Although, these adults were as likely to develop Alzheimer's disease, they were less likely to be impaired by it.